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Webbed penis : Simple diagnosis and treatment

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ABSTRACT

Prawito Singodimedjo - ***Webbed Penis : Simple diagnosis and treatment***

Webbed penis is defined as a congenital condition in which the scrotal skin extends on to the ventral aspect of the penile shaft. The incidence is very small in the population. Webbed penis is one of the "inconspicuous penis" which the diagnosis and proper treatment are simpler than other abnormalities of the penis, such as: buried penis, trapped penis, concealed penis and micropenis.
We present a webbed penis, one of the less frequent urological congenital anomaly. The report illustrates a 12 year old boy who visited the hospital with his parents. The parents concerned about the appearance of his son's penis. During erection and flaccid phase the penis still adhered to the scrotal skin, there was no complaint of dysuria. Surgery was performed by longitudinal incision of the webbed skin and sutured with the 5/0 Vicryl sutures, so the penis extended appropriately. The patient was discharged on the day seven post-operation. The wound revealed good healing and there was no sign of infection on the day ten, the follow up showed that the wound revealed good healing with the normally positioned and extended penis. Erection and voiding were normal.
The role and team work between of the primary care physicians, pediatricians and urologists are very important to prevent infertility and psychologic effects.

Key words: webbed penis, erection, psychologic effects, longitudinal skin incision, fertility.

ABSTRAK

Prawito Singodimedjo - ***Penis berselaput: Diagnosis dan terapinya sederhana***

Webbed penis merupakan kelainan kongenital organ genitalia eksterna laki-laki, yaitu kulit skrotum melekat pada bagian ventral dari batang penis, umumnya sampai sulkus koronarius. Angka kejadian *webbed penis* sangat kecil. Dilihat dari aspek diagnosis dan terapi dengan prosedur operasi menurut berbagai kepustakaan dan publikasi yang ada, *webbed penis* termasuk sederhana apabila dibandingkan dengan kelainan lain yang termasuk dalam kelompok ini seperti *buried penis, trapped penis, concealed penis,* dan *micropenis*.
Dilaporkan kasus *webbed penis* pada seorang anak berumur 12 tahun dengan keluhan: baik pada keadaan ereksi maupun tidak penisnya tetap melekat pada kulit skrotum, kencing tidak disertai rasa nyeri. Setelah dilakukan operasi pemisahan kulit skrotum yang melekat pada bagian ventral batang penis dengan insisi longitudinal, pasien diperbolehkan pulang pada hari ketujuh dengan keadaan luka operasi tidak ada tanda radang maupun infeksi.
Pada kontrol hari kesepuluh didapatkan penyembuhan luka operasi baik, penis dapat ereksi, dan kencingnya normal. Peran dari dokter Puskesmas, spesialis anak, dan spesialis urologi dalam pengelolaan kelainan ini sangat penting untuk mencegah terjadinya komplikasi infertilitas maupun efek psikologis.

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INTRODUCTION

Webbed penis is one of congenital conditions in which the scrotal skin extends on to the ventral aspect of the penis. The "inconspicuous penis" is well described in the urologic literature over the past 25 years. In 1986, Maizels, *et al.* developed the first classification system for a group of five disorders they called the "inconspicuous penis". The group covers poor penile suspension, buried penis, webbed penis, trapped penis, concealed penis, diminutive penis, and micropenis. It is important for family doctor, pediatricians and surgeons to be aware of this group of disorders for three reasons: first, circumcision is contraindicated in some conditions; second, the abnormal appearance of the external genitalia may be the source for the psychological trauma in children; and third, some cases may be associated with sexual problem, pain, and or abnormalities of the urinary stream.

The diagnosis and proper treatment for webbed penis is simpler than the other disorders in this group. The examination for the diagnosis is not complicated. Just by physical examination, we can diagnose webbed penis.

Surgery is the proper treatment for the "inconspicuous penis", but the problem is at what age the surgery should be performed. Harton, *et al.* (cit. Bergeson, *et al.*, 1993) prefer to delay surgical correction until school age or older, whereas others advise surgical intervention in infancy.

The surgical repair procedures for the webbed penis are well described in the literature,[1,2,3,4] including the webbed skin may be divided longitudinally to the base of the penis then sutured with interrupted 5/0 Vicryl sutures.

Other method for the other cases is also suggested by Frank, *et al.* 2002, a circumferential incision is made 1.5 cm from proximal to the coronal sulcus, Byars' preputial skin flaps are transferred to ventral surface of the penis, and redundant foreskin is excised. The scrotum may be anchored to the base of the penis to prevent a recurrence of the webbed appearance.

CASE PRESENTATION AND MANAGEMENT

A 12 year old boy visited Dr. Sardjito Hospital with his parents, because his parents were concerned about the appearance of their son's penis. Since newborn, a penile abnormality had been noted by the parents. Every day, usually after waking up in the morning, the patient had normal erection, there was no dysuria in voiding.

Physical examination revealed an obese uncircumcised penis with a prominent pubis. The foreskin is in the normal limit and significant penoscrotal webbing in which the skin from the scrotal extends on to the ventral of the shaft until the coronal sulcus.

During the narcotic stadium, the skin of the surgery area was purified from infection with the Povidone Iodine and then covered with sterile cloth. A 14 Foley urethral catheter was inserted into the bladder to prevent injury of the urethra. Surgery consisted longitudinal web skin incision from the coronal sulcus until the base of the penis, the point of bleeding was stopped by electrocauter. Then, longitudinal closure and approximation of the shaft skin and scrotal skin by interrupted suture with 5/0 Vicryl sutures was done, so that the penis extended appropriately. The wound incision was dressed with Safratule and sterile gauze, and fixed by adhesive tape. The penis was placed in the cranial position to prevent adhesion between the skin of the shaft penis and the scrotal skin. (FIGURE 1,2,3).

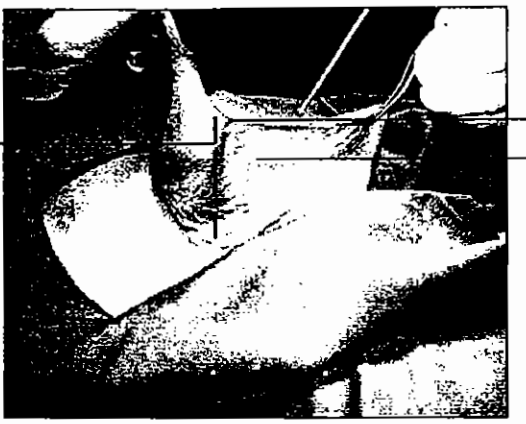

FIGURE 1. The webbed penis

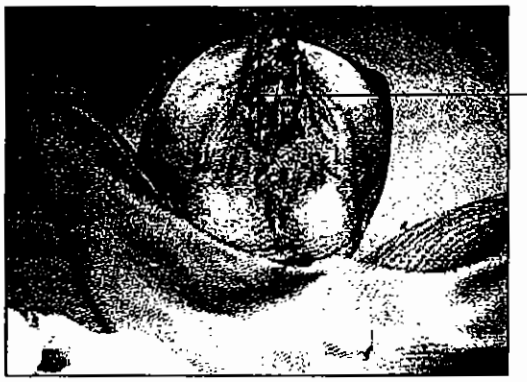

FIGURE 2. Ventral view, after the web skin incision

FIGURE 3. Ventral view, longitudinal incision method

After surgical repair the patient was given amoxycillin and analgesics. The patient discharged on the day seven post-operation after replacing the dressing and removing the urethral catheter. The follow up on the day ten revealed good wound healing, with normally positioned and extended penis, the erection and the voiding were normal (FIGURE 4,5).

FIGURE 4. Ten days after operation revealed good wound healing.

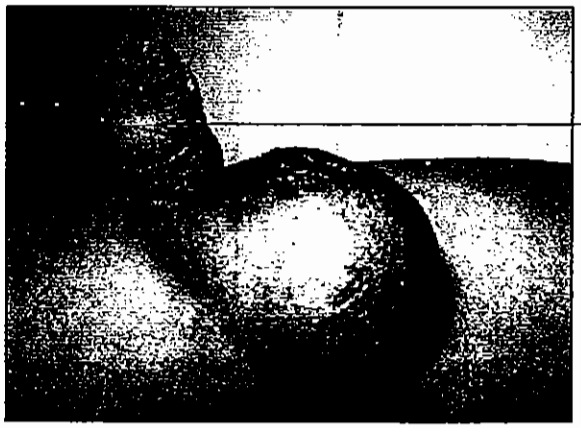

FIGURE 5. Ten days after operation, the penis appeared, normally positioned and extended

DISCUSSION

During the third month gestation, a fold of skin at the base of the glans begins to grow distally and two months later it surrounds the glans. This forms the prepuce. Meanwhile, the genital swellings shift caudally and recognizable as the scrotal swellings. They meet and fuse, resulting in the formation of scrotum.[1,5]

In 1986, Maizels *et al.* developed the first classification system for a group of five disorders called the "inconspicuous penis". The "inconspicuous penis" is used to refer in a phallus that appears to be small. Seven urologic entities that fall under this term have been described. These conditions are poor penile suspension, buried penis, webbed penis, trapped penis, diminutive penis and micropenis.[1,2,4]

All of the urologic entities under the term inconspicuous except the micropenis and the diminutive penis have a normal-size phallus. The normal range for newborns is 3.5 ± 0.7 cm[4] and report by Silver (2000) that the normal newborn penis was at least 1.9 cm long.

The "inconspicuous penis" has been well described in the urologic literature over the past 25 years. It is important for the primary care physicians, pediatricians and general surgeons to realize that an abnormal appearance of the external genitalia may have psychological effects on the child and his parents. Boys may feel scare when discover the problem, which may result in depression, feeling of inadequacy and insecurity, and also may exaggerate the possible functional and cosmetic significance of abnormal genitalia. Parents frequently worry about the future potency and fertility.[1]

The webbed penis consists of middle skin web and or dartos band at the penoscrotal angle that binds the ventrum of the penis to the scrotum. The fusion may be complete, with the total absence of differentiation of the penis from the scrotum, like in this case, or incomplete with one web of varying length connecting the penis and scrotum. This anomaly is usually not associated with other abnormalities. There are a few reports of hypoplasia of the distal urethra. The hypospadias, chordee, or micropenis is the congenital anomalies which commonly occured on conjunction with webbed penis.[1]

Besides as a congenital anomaly, webbed penis is also the most frequent result of iatrogenic condition following a circumcision in which there was an excess removal of ventral penile shaft skin.[1,2,6,7] The important point for the management of the "inconspicuous penis" is the role of the primary care physicians to make correct diagnosis and timely refers it to the urologist.

Bargeson, *et al.*, wrote that the indication for surgical treatment of the inconspicuous penis is not clear. The time when the surgery procedure should be performed is also a controversy. Many authors advise surgical intervention in infancy, but Horton, *et al.* (cit Bargeson, *et al.* 1993) prefer to delay surgical correction until school age or older. [4] In more severe cases, operative correction is needed and preferably being carried out around 6 – 12 months of age.[1]

The various surgical procedures are well described in the literature. For webbed penis, Frank *et al.* advised a longitudinal web skin incision procedure or a circumferential incision procedure. The surgery correction for this patient was the longitudinal web skin incision procedure. Day ten follow up revealed good wound heeling, with normally positioned and extended penis.

CONCLUSION

Webbed penis is one of the congenital anomalics of the external genitalia in boys. The incidence of this anomaly is very small in the population. The clinical appearance is characterized by the skin of the scrotum extends on to the ventral shaft of the penis. Surgical correction by longitudinal web skin incision procedure showed a good result, on the day ten follow up the wound revealed good healing with normally positioned and extended penis.

REFERENCE

1. Bergeson P, Hopkin RJ, Bailey RB, McGill LC, Piatt JC. The Inconspicuous Penis. Pediatrics, 1993; 92(6): 794-99.
   Available from URL: http://www.cirp.org/library/complications/bergeson
2. Elder JS. Abnormalities of The Genitalia in Boys And Their Surgical Management. Campbell's Urology. 2002; Volume 3, Eight edition: 2334-52.
3. Elder JS. Circumcision, Urethral Prolapse, Penile Torsion, Buried Penis, Webbed Penis, and Megalourethra. Operative Pediatric Urology. 2002; Second Edition: 273-85.
4. Silver RI. Microphallus (Micropenis). The 5-Minute Urology Consult 2000: 344-347.
5. Tanagho EA. Embryology of the Genitourinary System. Smith's General Urology 2004; Sixteenth edition: 8-30.
6. Penoscrotal Webbing, in Complications of Circumcision. Available from URL: http://www.circumstitions.com/Complic.html
7. Brown SB, Kangesu L. Circumcision in "Buried Penis"- a Cauntionary Tale. Annals of The Royal College of Surgeons of England, 2004; (86) 1: 35-37.
   Available from URL: http://www.cirp.org/library/complications/sivakumar1/